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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,391	01/07/2002	Jamey D. Marth	19452A-000320US	7913

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TOWNSEND AND TOWNSEND AND CREW, LLP
 TWO EMBARCADERO CENTER
 EIGHTH FLOOR
 SAN FRANCISCO, CA 94111-3834

EXAMINER

ZARA, JANE J

ART UNIT	PAPER NUMBER
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1635

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/856,391	Applicant(s) MARTH ET AL.	
	Examiner Jane Zara	Art Unit 1635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-35 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-35 are pending in the instant application.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1, 2 and 9, drawn to a method of modulating an inflammatory response comprising inhibiting binding of core 2 oligosaccharide to a receptor, classified in class 436, subclass 501.
- II. Claims 1, 3, 6 and 8, drawn to a method of modulating an inflammatory response comprising inhibiting enzymatic activity for core 2 oligosaccharide synthesis, classified in class 435, subclass 7.1.
- III. Claims 1, 3 and 4, drawn to a method of modulating an inflammatory response comprising inhibiting enzymatic activity for minimal core 2 oligosaccharide synthesis, classified in class 435, subclass 7.1.
- IV. Claims 1, 3 and 4, drawn to a method of modulating an inflammatory response comprising inhibiting synthesis of enzymes for minimal core 2 oligosaccharide synthesis, classified in class 435, subclass 7.1.
- V. Claims 1, 3 and 5, drawn to a method of modulating an inflammatory response comprising inhibiting attachment of saccharide residues to minimal core 2 oligosaccharide, classified in class 435, subclass 7.1.

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- VI. Claims 1, 3, 6 and 7, drawn to a method of modulating an inflammatory response comprising inhibiting expression of a gene encoding the core 2 GlcNAc transferase, classified in class 536, subclass 24.5.
- VII. Claims 10-13 and 15, drawn to a method of modulating binding of a first myeloid cell to another cell comprising inhibiting binding to a minimal core 2 oligosaccharide, classified in class 436, subclass 501.
- VIII. Claims 10-13 and 16, drawn to a method of modulating binding of a first myeloid cell to another cell comprising inhibiting binding to a modified core 2 oligosaccharide, classified in class 436, subclass 501.
- IX. Claims 10-13, 14 and 17, drawn to a method of modulating binding of a first myeloid cell to another cell comprising inhibiting core 2 GlcNAc transferase activity, classified in class 435, subclass 7.1.
- X. Claims 10-13, 14 and 17-20, drawn to a method of modulating binding of a first myeloid cell to another cell comprising inhibiting core 2 GlcNAc transferase synthesis, classified in class 536, subclass 24.5.
- XI. Claims 10, 21 and 23, drawn to a method of enhancing binding of a first myeloid cell to another cell comprising contacting the first cell with a core 2 GlcNAc transferase polypeptide, classified in class 530, subclass 350.
- XII. Claims 10, 21 and 22, drawn to a method of enhancing binding of a first myeloid cell to another cell comprising contacting the first cell with a nucleic acid encoding a core 2 GlcNAc transferase polypeptide, classified in class 435, subclass 455.

- XIII. Claims 24 and 25, drawn to a method of identifying a compound that inhibits an inflammatory response comprising determining the amount of GlcNAc transferred to Gal β 1 -> 3GalNAc-, classified in class 435, subclass 7.1.
- XIV. Claim 26, drawn to a method of identifying a compound that inhibits an inflammatory response comprising determining the amount of core 2 oligosaccharide formed, classified in class 435, subclass 4.
- XV. Claims 26-29, drawn to a method of identifying a compound that inhibits an inflammatory response comprising determining the amount of modified core 2 oligosaccharide is formed using polylactosamine and galactin-1, classified in class 435, subclass 7.1.
- XVI. Claims 26-28 and 30-31, drawn to a method of identifying a compound that inhibits an inflammatory response comprising determining the amount of modified core 2 oligosaccharide is formed using Sle^x and P selectin, classified in class 435, subclass 7.1.
- XVII. Claims 32-35, drawn to a method of identifying a compound that inhibits an inflammatory response, but not lymphocyte mediated immune responses, comprising contacting a library and determining the amount of inhibition of core 2 oligosaccharide binding to a corresponding receptor, classified in class 435, subclass 6.

Please pick a single saccharide residue from claims 5, 24 and 27. Each saccharide is considered a separate and distinct invention for the reasons set forth below.

The inventions are distinct, each from the other because of the following reasons:

Inventions I through XVII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different methods of Groups I-XVII are biologically and functionally different and distinct from each other and thus one does not render the other obvious. The methods of the different Groups each comprise steps that are not required for or present in the methods of the other Groups: Inhibiting the binding of core 2, minimal core 2, or variously modified core 2 oligosaccharide(s) to different and distinct receptors, inhibiting the activity of different and distinct enzymes, inhibiting the synthesis of different and distinct enzymes, identifying compounds that are involved in modulating these various steps, and screening libraries. Thus, the operation, function and effects of these different methods are different and distinct from each other. Therefore, the inventions of these different, distinct groups are capable of supporting separate patents.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

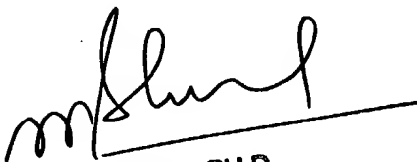
Conclusion

Certain papers related to this application may be submitted to Art Unit 1635 by facsimile transmission. The faxing of such papers must conform with the notices published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 C.F.R. § 1.6(d)). The official fax telephone number for the Group is **703-872-9306**. NOTE: If Applicant *does* submit a paper by fax, the original signed copy should be retained by applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED so as to avoid the processing of duplicate papers in the Office.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jane Zara** whose telephone number is **(571) 272-0765**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John LeGuyader, can be reached on (571) 272-0760. Any inquiry regarding

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this application should be directed to the patent analyst, Katrina Turner, whose telephone number is (571) 272-0564. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.



RAM R. SHUKLA, PH.D.
PRIMARY EXAMINER

JZ

February 29, 2004